

# Tobacco Use Among California's Diverse Populations

People of color and low-income communities in California consistently face higher rates of morbidity and mortality than non-Hispanic Whites. The diseases and injuries that affect the population as a whole affect these groups more frequently and severely. The Tobacco Industry heavily targets these populations with retail store advertising, sponsorship and print media. They also heavily target the lesbian, gay, bisexual and transgender (LGBT) community, which has a much higher smoking rate than the population as a whole.

The California Tobacco Control Program of the CA Department of Public Health has designated 4 ethnic groups, low Socio-economic Status (low SES) and the LGBT communities as Priority Populations for Tobacco Prevention Efforts because of these health disparities. Below is a brief summary of the demographics of these Priority Populations.

## African Americans

- Represent 9% (or 93,749) of the population in Contra Costa County.<sup>i</sup>
- In 2005, AA adults had a smoking prevalence rate of 19.3 %, which is higher than non-Hispanic White, H/L, and API populations.<sup>ii</sup>
- African Americans have the highest lung cancer incidence and mortality rates in California -18 % higher than non-Hispanic Whites and almost twice the rate among Asian/Pacific Islanders and HL men.<sup>ii</sup>
- Nearly 75% of African Americans use menthol tobacco products compared with about 25% of whites.<sup>iii</sup>
- Possible factors in the high prevalence rate include the fact that the tobacco industry buys the support of the community through extensive sponsorship of cultural, educational and entertainment events, as well as intense marketing in the African American community and ethnic media.<sup>iv</sup>

## American Indians and Alaska Natives (AI/AN)

- Represents <1% (or 4,091) of the population in Contra Costa County.<sup>i</sup>
- American Indian/Alaska Natives suffer disproportionately from many health conditions and have the highest adult smoking rate of any ethnic group (36.4%).<sup>ii</sup>
- In 2005, AI/AN women had the highest rate of smoking during pregnancy (17.8%) compared to non-Hispanic White (13.9%) and non-Hispanic Black (8.5%) women.<sup>ii</sup>

## Asian and Pacific Islanders (API):

- Represent 13% (or 134,389) of the population in Contra Costa County.<sup>i</sup>
- Significant gender differences in smoking behavior exist among Asian American and Pacific Islanders. API men smoked at a greater rate than women in 2005 (14.9% versus 5.3%).<sup>ii</sup>
- Among Asian sub-populations in California, Korean males and Vietnamese males (35.9% and 31.6%, respectively) had higher cigarette smoking prevalence compared with males in other Asian American sub-populations and in Californian men in general from the same survey.<sup>ii</sup>



- Although the overall smoking rate for Asian women is low, their rates increase as they become more acculturated.<sup>ii</sup>
- Tobacco-related cancer and cardiovascular disease are the top two causes of death among Asian Americans and Pacific Islanders. For AAPI individuals, approximately 35% of total deaths are attributed to stroke and heart diseases, and approximately 26% of total deaths are attributed to cancer.<sup>iv</sup>
- Tobacco companies are developing specific promotion strategies to target the Asian population. Asian smokers are a key market since smoking prevalence in most Asian countries is considerably higher than in the United States.<sup>ii</sup>

### Hispanics/Latinos:

- Represent 22% (or 220,862) of the population in Contra Costa County.<sup>i</sup>
- Lung cancer is the leading cause of cancer deaths among Hispanics. Deaths from lung cancer are 2.3 times higher for Hispanic men as they are for Hispanic women.<sup>ii</sup>
- Adult smoking prevalence among California's H/L population was 11.5 % in 2005, with men smoking at over 2 times the rate of women. Smoking among H/L adult males was 16.0 %, while HL adult women smoked at a rate of 7.2 %.<sup>ii</sup>
- In 2008, Hispanic high school students in California had the second highest smoking prevalence among all high school students (13.9%), just behind Caucasian high school students (17.6%).<sup>iv</sup>
- The tobacco industry is making a concerted effort to target the Hispanic/Latino community. The tobacco industry has contributed to primary and secondary schools, funded universities and colleges, and supported scholarship programs targeting Hispanics and Latinos. Tobacco companies have also placed advertising in community publications and sponsored Hispanic cultural events.<sup>ii</sup>

### Low Socio Economic Status (SES):

- Education data and poverty data (Contra Costa County, 2000):
  - 12% (80,1297) of Contra Costa residents (ages 25 & older) do not have a high school diploma<sup>v</sup>
  - 20% (138,856) of Contra Costa residents (ages 25 & older) have a high school diploma only (including GED recipients).<sup>v</sup>
  - 20.5% (or 204,586) of the population in Contra Costa County lives below 200% of the Federal Poverty Level.<sup>v</sup>
- Smoking prevalence for the low SES population in California was 18.6 % in 2008—over three times higher than that of the high SES population. Also, smoking prevalence for the low SES population has declined slower than that of the high SES population over time.<sup>ii</sup>
- Smoking prevalence in low SES whites is 29.9 % in California, which is almost two times higher than that of the general population.<sup>ii</sup>
- Smoking prevalence in low SES men is about two times higher than in low SES women.<sup>ii</sup>
- 25.8 % of low SES adults in California were exposed to SHS in the workplace in 2005, which is almost five times higher than the high SES population.<sup>ii</sup>
- Women in low-income families were three times more likely to smoke during pregnancy, compared to women in higher-income families.



Socioeconomic status is the single greatest predictor of smoking behavior and cuts across all race and ethnic groups.

**LGBT (Lesbian, Gay, Bisexual, Transgender):**

- It is estimated that there are more than one million LGBT adults living in California, with 58.5% being female and 41.5% being male.
- According to 2003 LGBT statewide survey, smoking prevalence in the LGBT population (30.4%) was almost double that of the general population (16.2%).<sup>ii</sup>
- 43.4% of California's LGBT young adults between the ages of 18-24 smoke, as compared to 18.2% of their general population peers.<sup>iv</sup>
- Smoking prevalence for women in the LGBT community is almost triple that of women in the general population.<sup>iv</sup>
- A majority of LGBT adults prefer smoke-free environments.<sup>ii</sup>
- Nearly all adult LGBT smokers (98%) say they believe smoking increases their risk for getting lung cancer and heart disease, compared to 88% of all adult smokers who believe smoking raises lung cancer risk and 84% who believe the risk of heart disease increases.<sup>ii</sup>
- Fewer LGBT smokers try to quit (75%, compared to 80% of all adult smokers).<sup>ii</sup>
- Tobacco industry advertising has openly targeted gays and lesbians since 1992, when Philip Morris began running ads in Genre magazine.<sup>iv</sup>
- Failure to include the LGBT community in tobacco control efforts in the past has hampered success in reducing the rates of tobacco use in this community.

<sup>i</sup> Ethnic Data Source: U.S. Census Bureau, American Factfinder, 2005-2007 American Community Survey.

<sup>ii</sup> California Tobacco Control Program Local Tobacco Control Interventions

Request for Applications 10-100

<sup>iii</sup> Surgeon General Report

[http://www.cdc.gov/tobacco/data\\_statistics/sgr/1998/highlights/african\\_americans/index.htm](http://www.cdc.gov/tobacco/data_statistics/sgr/1998/highlights/african_americans/index.htm)

<sup>iv</sup> [http://www.center4tobaccopolicy.org/\\_files/\\_files/Diverse%20Populations%20FINAL.pdf](http://www.center4tobaccopolicy.org/_files/_files/Diverse%20Populations%20FINAL.pdf)

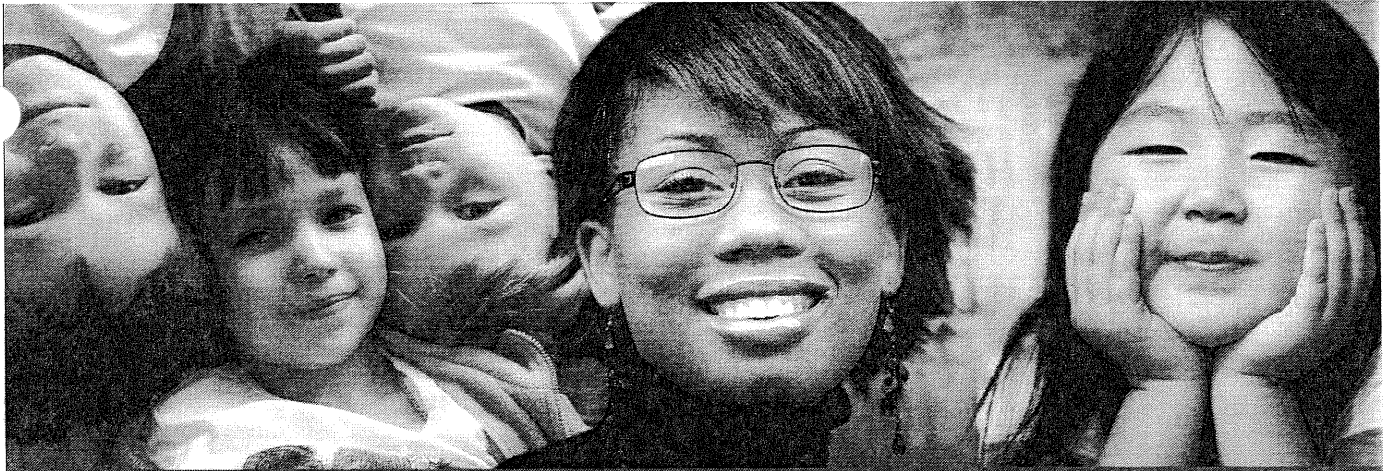
<sup>v</sup> U.S. Census Bureau, American Factfinder, 2005-2007 American Community Survey

Summary File 3. Note: Due to the high cost of living in Contra Costa County, we have calculated poverty to include all county residents who reported a gross income less than 200% of the Federal Poverty Level.

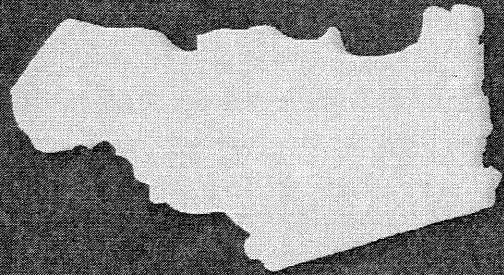








# COMMUNITY HEALTH INDICATORS *for* CONTRA COSTA COUNTY









# EXECUTIVE SUMMARY

This summary highlights key findings from the 2007 *Community Health Indicators for Contra Costa Report*, which describes the health status of Contra Costa residents on a number of important health and demographic indicators. The report was prepared by Contra Costa Health Services' Community Health Assessment, Planning and Evaluation (CHAPE) group for the Hospital Council of Northern and Central California.

**IN CONTRA COSTA, WHITES MAKE UP MORE THAN HALF (52.9%) OF THE POPULATION AND REPRESENT THE GREATEST NUMBER OF DEATHS** and cases of disease for many health issues in the county.

However, **ALARMING HEALTH INEQUITIES EXIST IN CONTRA COSTA FOR LOW-INCOME RESIDENTS OF COLOR.** These inequities, which are “unnecessary, avoidable, unfair and unjust”<sup>1</sup> differences in health status, are due at least in part to unequal distribution of social, physical, economic and political resources that put some groups at a disadvantage for good health outcomes and limits their ability to lead healthy lives.<sup>2, 3, 4</sup>

## **AFRICAN AMERICANS ARE AT GREATEST RISK FOR POOR HEALTH OUTCOMES.**

African Americans have a higher age-adjusted death rate from all causes combined than county residents overall and than Whites, Latinos and Asians.

African Americans also have significantly higher death rates from:

- homicide (5.0x higher)
- prostate cancer (1.9x higher)
- diabetes (1.7x higher)
- infant death (1.5x higher)
- fetal death (1.2x higher)
- heart disease
- stroke
- unintentional injuries
- cancers (all types combined)
- lung cancer (men)



African Americans are also significantly more likely to be sick from or experience:

- AIDS cases (3.4x higher)
- Non-fatal assault hospitalizations (2.7x higher)
- childhood asthma hospitalization (1.9x higher)
- gonorrhea (1.5-1.8x higher)
- chlamydia (0.6-1.0x higher)
- diabetes\*
- low birth weight
- teen births
- self inflicted injury hospitalization
- lung cancer (men)
- prostate cancer
- childhood overweight
- adult overweight/obesity\*

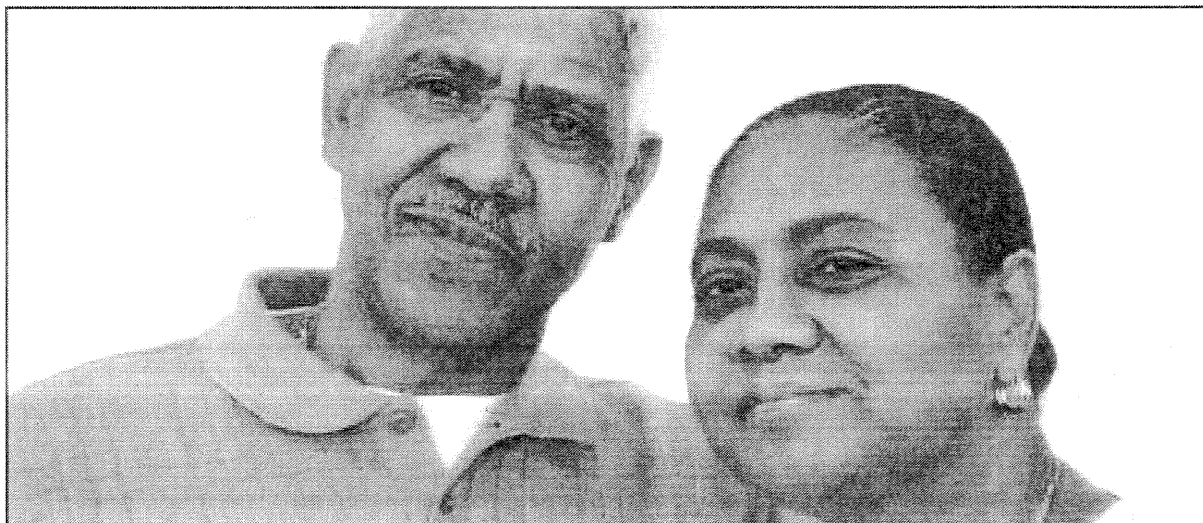
\* Reflects findings from Bay Area data.

### **RESIDENTS OF LOW-INCOME, COMMUNITIES OF COLOR ARE MORE LIKELY TO DEVELOP AND DIE FROM MANY HEALTH ISSUES.**

Not all residents are affected the same. Contra Costa communities with the highest percentage of low-income and non-white residents — San Pablo, Richmond and Pittsburg — experience higher death and disease rates than the county overall for many chronic and communicable diseases, injury, and maternal and child health issues.

### **MOST DEATHS IN CONTRA COSTA ARE FROM CHRONIC DISEASES.**

Heart disease and cancer are the top two leading causes of death in the county, accounting for half of all deaths (49.9%), followed by stroke (8.1%).





Leading causes of death Heart disease, cancer, stroke, <i>chronic lower respiratory disease</i> , and <i>influenza &amp; pneumonia</i>	Population group Whites
Heart disease, cancer, stroke, <i>homicide</i> , and <i>unintentional injuries</i>	African Americans
Cancer, heart disease, stroke, <i>unintentional injuries</i> and <i>diabetes</i>	Latinos
Cancer, heart disease, stroke, <i>diabetes</i> and <i>unintentional injuries</i>	Asians

Although the top-three leading causes of death are common across all race/ethnic groups in the county, **OTHER CAUSES OF DEATH IN THE TOP FIVE VARY BY RACE/ETHNICITY**, including several other chronic diseases and injury.

**CHRONIC DISEASES AND UNINTENTIONAL INJURY GREATLY AFFECT OLDER RESIDENTS.** Almost three-quarters (74.3%) of local deaths are among residents 65 years of age and older. Different health issues impact residents over their lifespan. Most deaths among older people are from chronic diseases. Heart disease and cancer are among the top two leading causes of death for residents ages 45 and older. Unintentional injury is the third leading cause of death for residents 45-54 years old and a key health issue for older residents. Those 65 and older have the highest rates of death and hospitalization from unintentional injuries, primarily due to falls. For those 45-64 years of age, the majority of unintentional injury deaths are from poisoning due to drug overdoses.

### **INJURIES AND SEXUALLY TRANSMITTED DISEASES (STDs) ARE IMPORTANT HEALTH ISSUES THAT IMPACT YOUNGER RESIDENTS.**

Unintentional injury, primarily related to motor vehicle accidents, is the leading cause of death for residents 1-34 years old. Homicide and suicide are the second and third leading causes of death respectively for residents 15-34 years old. Young residents (15-24 years old) also have the highest rate of hospitalization from non-fatal assaults in the county and represent almost 40% of these hospitalizations. STDs are also a key health issue for young people in the county. The highest rates of chlamydia and gonorrhea in Contra Costa are among young adults (20-24), followed by teens (15-19).



**CONTRA COSTA RESIDENTS FARE BETTER THAN THE STATE ON MANY HEALTH INDICATORS BUT ARE MORE LIKELY TO DIE FROM CANCER AND STROKE.**

Compared to California, Contra Costa has...

**LOWER RATES OF**

- heart disease deaths
- diabetes deaths
- AIDS cases
- childhood overweight
- teen births
- STD cases (*syphilis, chlamydia and gonorrhea*)

**HIGHER RATES OF**

- cancer deaths (*all cancers combined; also for breast, colorectal and lung cancers*)
- stroke deaths
- cancer incidence (*all types combined; also for prostate cancer*)

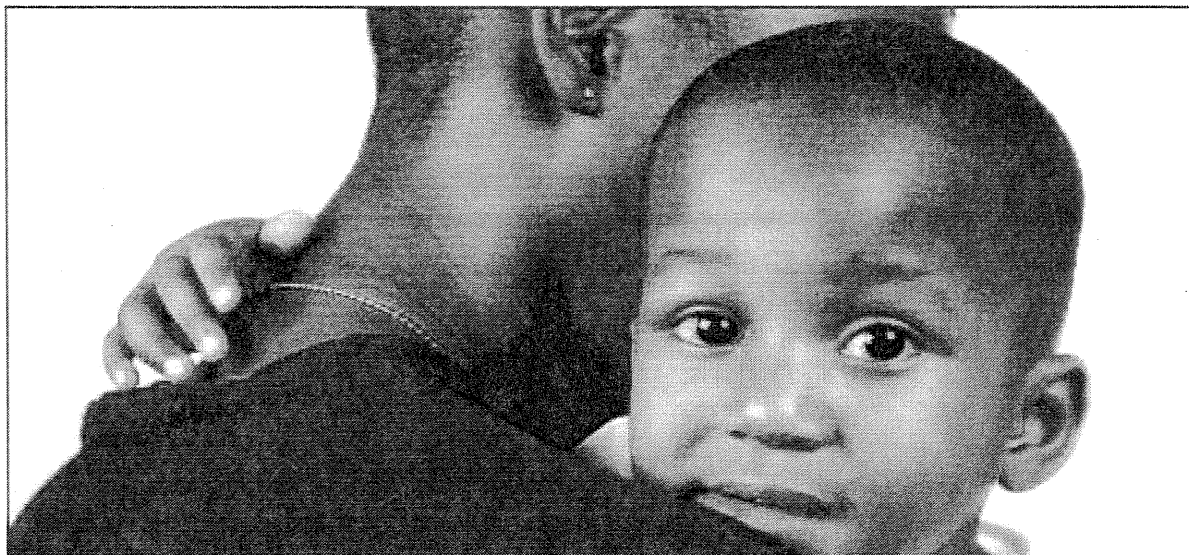
**CONTRA COSTA HAS ACHIEVED NATIONAL BENCHMARKS FOR SEVERAL HEALTH INDICATORS, BUT MUST IMPROVE UPON A NUMBER OF DISEASE, INJURY AND INFANT HEALTH ISSUES.**

Contra Costa **has met** the Healthy People 2010 (HP2010) objectives for infant mortality and deaths from lung and prostate cancer.

Unfortunately, the county **has not met** the HP2010 objectives for many health issues:

- |  |  |
|--|--|
| • heart disease  | • AIDS                                 |
| • cancer ( <i>all cancers combined; also for breast and colorectal cancers</i> ) | • diabetes                             |
| • stroke   | • adult obesity                        |
| • unintentional injury   | • low birth weight                     |
| • homicide   | • prenatal care during first trimester |
| • suicide  |  |
| • fetal mortality  |  |





**TO IMPROVE THE HEALTH OF ALL CONTRA COSTA RESIDENTS, PROGRAM AND POLICY STRATEGIES SHOULD TARGET CHRONIC DISEASE PREVENTION AND THE ELIMINATION OF HEALTH INEQUITIES AMONG THOSE AT GREATEST RISK FOR POOR HEALTH OUTCOMES.**

**TO REDUCE HEALTH INEQUITIES IN CONTRA COSTA,** prevention and treatment efforts should be accessible and relevant to those at greatest risk for poor health outcomes -- people from low-income communities of color. Comprehensive, sustainable solutions to address these inequities must tackle unequal social, environmental, economic and political conditions and other root causes that contribute to these unfair differences in health status in the county. Stakeholders from a variety of sectors – including health, education, business, employment, housing and transportation – need to work with members of the communities at greatest risk for poor health outcomes. The work should focus on developing and implementing viable strategies to create meaningful improvements in health and quality of life in the county.

**TO MAKE THE GREATEST IMPACT ON DEATH AND DISEASE IN THE COUNTY,** prevention efforts should address the leading causes of death: heart disease, cancer and stroke. Behavioral and environmental interventions to reduce risk factors associated with these chronic diseases should begin early and continue throughout life. Programs and policies that ensure access to medical screenings and health care, limits smoking and exposure to secondhand smoke and provide greater access to affordable healthy foods and physical activity opportunities are critical to prevention, early detection and management of these diseases and other risk factors associated with them.



## Contra Costa Demographics snapshot

- 1,006,486 residents (2005)
- Most residents are White (52.9%), followed by Latino (21.1%), Asian (13.1%) and African American (9.1%)
- 19.6% of residents live in poverty (2005)
- 43% of low-income residents are uninsured.
- 13,268 live births annually

### Text Sources:

1.Whitehead M. (1992). The concepts and principles of equity in health. *Int J Health Serv*; 22:429-445. In Wilson A.J., Oldenburg B.F., Lopez A.D. (2003). Targeted approaches for reducing inequities in chronic disease. *Medical Journal of Australia*. 179: 231-232.

2.Woolf S. Society's choice: the tradeoff between efficacy and equity and the lives at stake (2004). *Am J Prev Med*. 27:49-56. In Baker E.A., Metzler M., Galea S. (2005). *American Journal of Public Health*. 95 (4): 553-555.

3.Braverman P., Gruskin S. Defining equity in health. (2003) *J Epidemiol Community Health*. 57: 254-258. In Baker E.A. et al. (2005).

4.Barnett E., Casper M. (2001). A definition of "social environment." *Am J Public Health*. 91: 465. In Baker E.A. et al. (2005).

5.The National Association of County & City Health Officials; The Ingham County Health Department (2006). *Tackling Health Inequities Through Public Health Practice: A Handbook for Action*.



# Cancers – All Types

Cancer is the second leading cause of death in Contra Costa.

## Deaths

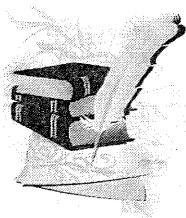
Cancer is the second leading cause of death in Contra Costa, accounting for 24.4 % of all deaths. Between 2002-2004, 5,058 Contra Costa residents died from cancer. This means that approximately 1,686 Contra Costa residents die from cancer each year. The age-adjusted death rate from cancer for Contra Costa is higher (170.5 per 100,000) than the rate for California (163.3 per 100,000).

Contra Costa's cancer death rate (170.5 per 100,000) does not meet the national Healthy People 2010 objective (159.9 per 100,000).

In other health reports, cancer is sometimes called "malignant neoplasms".

- African Americans are most likely to die from cancer.
- Men are more likely to die from cancer than women.
- Most new cancer cases and deaths are among Whites.
- On average, 1,686 residents die from cancer each year.
- Nearly 4,413 residents are diagnosed with cancer each year.
- Contra Costa's cancer death rate (170.5 per 100,000) does not meet the Healthy People 2010 objective.

Local Findings



Editor's note: This section presents data for all malignant cancers as one group. This allows us to see the affect that cancer has in our County as a whole. The most common types of cancers are prostate, breast, lung and colorectal cancers. Together, these four cancers account for more than half of all cancer diagnoses and deaths in California.<sup>1</sup> Specific sections for each of these cancers follow this summary.



## Cancer Deaths by Race/Ethnicity

Table 1. Contra Costa County 2002–2004

	Deaths	Percent	Rate
White	3,852	76.2%	177.1
African American	481	9.5%	*239.4
Asian	352	7.0%	**113.8
Latino	334	6.6%	**129.3
Contra Costa	5,058	100.0%	170.5

These are age-adjusted rates per 100,000 residents.

\* Significantly higher rate compared to the county overall.

\*\* Significantly lower rate.

The majority of deaths from cancer in the county occur among Whites (3,852), followed by African Americans (481), Asians (352) and Latinos (334).

Even though African Americans die in far fewer numbers than Whites, African Americans are more likely to die from cancer. African Americans have the highest cancer death rate (239.4 per 100,000) – higher than the county overall (170.5 per 100,000), Whites (177.1 per 100,000), Asians (113.8 per 100,000) and Latinos (129.3 per 100,000). This difference is not due to the age of the population and may be due to physical or social environmental risks, inadequate screening and treatment, or unhealthy behaviors. Asians and Latinos are less likely to die compared to the county overall.

Men are more likely to die from cancer (189.0 per 100,000) than women (160.0 per 100,000). Though men are more likely to die from cancer, over half of the deaths from cancer (2,706, 53.5%) occur among women because there are more women in the county's older population.

The highest rates of cancer deaths occur among African American men and women, where we also see the greatest gender difference in rates (307.3 per 100,000 men vs. 199.7 women per 100,000). White and Latino men are also more likely to die from cancer than their female counterparts.



## Cancer Deaths for Men

Table 2. Contra Costa County Residents 2002–2004

	Deaths	Percent	Rate
White	1,761	74.9%	191
African American	238	10.1%	*307.3
Asian	172	7.3%	**132.5
Latino	167	7.1%	164.0
Contra Costa Men	2,352	100.0%	189.0

These are age-adjusted rates per 100,000 men.

\* Significantly higher rate compared to men in the county overall.

\*\* Significantly lower rate.

## Cancer Deaths for Women

Table 3. Contra Costa County Residents 2002–2004

	Deaths	Percent	Rate
White	2,091	77.3%	158.6
African American	243	8.9%	*199.7
Asian	180	6.7%	**100.7
Latina	167	6.2%	**109.9
Contra Costa Women	2,706	100.0%	160.0

These are age-adjusted rates per 100,000 women.

\* Significantly higher rate compared to women in the county overall.

\*\*Significantly lower rate.

People living in San Pablo, Martinez, Richmond, Antioch and Concord have the highest cancer rates – they are more likely to die from cancer compared to the county overall. The highest numbers of

deaths from cancer occur among people living in Walnut Creek (761), Concord (642), Richmond (537), Antioch (409) and Pittsburg (259).



## Cancer Deaths by Selected Communities

Table 4. Contra Costa County 2002–2004

	Deaths	Percent	Rate
Walnut Creek	761	15.0%	185.4
Concord	642	12.7%	*191.2
Richmond	537	10.6%	*208.9
Antioch	409	8.1%	*206.4
Pittsburg	259	5.1%	193.6
Martinez	241	4.8%	*242.9
San Pablo	194	3.8%	*282.5
Brentwood	136	2.7%	170.3
Pinole	109	2.2%	170.9
Oakley	96	1.9%	215.6
Bay Point	73	1.4%	178.2
Contra Costa	5,058	100.0%	170.5

These are age-adjusted rates per 100,000 residents.

\* Significantly higher rate compared to the county overall.

### New Cases

New cancer cases provide a sense of how much – and among whom – the disease is surfacing in the community. This information can inform prevention, screening and treatment programs by highlighting who is most at risk for being diagnosed with cancer and tailoring programs appropriately.

Between 2000–2004, 22,067 new cases of invasive cancer were diagnosed in Contra Costa. This means that on average, 4,413 new cancer cases are diagnosed in the county each year.

Three-quarters of these new cases (74.3%) in the county are among Whites: females (8,224 cases) and males (8,174 cases).



## New Cancer Cases in Men

Table 5. Contra Costa County 2000–2004

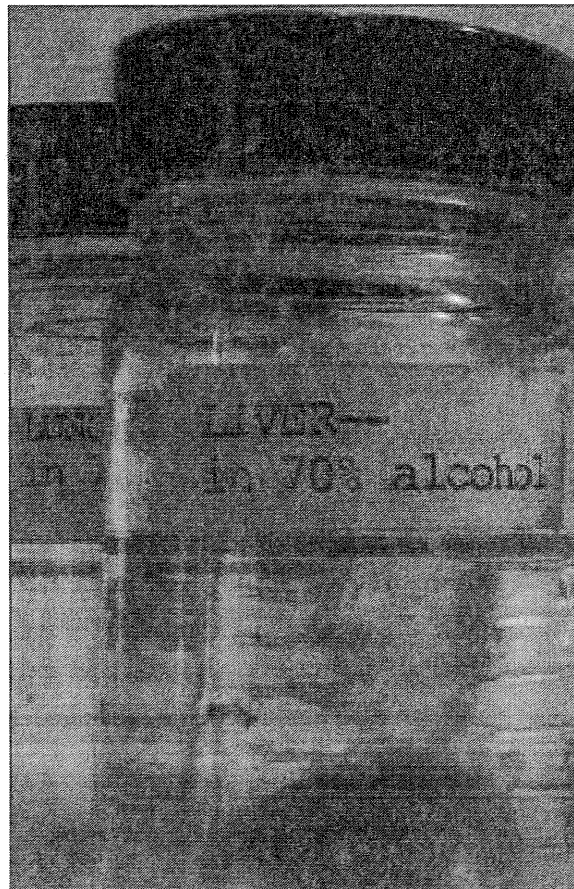
	Cases	Percent	Rate
White	8,174	74.3%	542.6
African American	886	8.1%	*580.6
Latino	800	7.3%	**411.6
Asian/Pacific Islander	792	7.2%	**352.0
Contra Costa Men	10,996	100.0%	526.0

These are age-adjusted rates per 100,000 men.

\* Significantly higher rate compared to men in the county overall.

\*\* Significantly lower rate.

Although more cases of invasive cancer are diagnosed among Whites, African American men in Contra Costa have the highest incidence rate in the county (580.6 per 100,000) – higher than men in the county overall (526.0 per 100,000), Latino men (411.6 per 100,000) and Asian/Pacific Islander men (352.0 per 100,000). Latino and Asian/Pacific Islander men have lower incidence rates compared to men in the county overall.





## New Cancer Cases in Women

Table 6. Contra Costa County 2000–2004

	Cases	Percent	Rate
White	8,224	74.3%	*440.8
Latina	951	8.6%	**361.7
Asian/Pacific Islander	889	8.0%	**286.2
African American	840	7.6%	394.5
Contra Costa Women	11,071	100.0%	415.8

These are age-adjusted rates per 100,000 women.

\* Significantly higher rate when compared to women in the county overall.

\*\* Significantly lower rate.

Among women, Whites have the highest cancer incidence rate (440.8 per 100,000) – higher than women in the county overall (415.8 per 100,000), Latinas (361.7 per 100,000), Asian/Pacific Islander (286.2 per 100,000), and African American women (394.5 per 100,000).

The gender difference in incidence rates for all invasive cancers is greatest among African Americans: the male rate (580.6 per 100,000) was almost 1.5 times (147%) that of females (394.5 per 100,000). For all races combined, the age-adjusted incidence rate is 27% higher for males than females in the county.

Between 2000–2004, Contra Costa's age-adjusted incidence rate for all invasive cancers combined (463.1 per 100,000) was higher than California's (448.2 per 100,000).<sup>2</sup>

### Cancer Risk & Prevention

Overall, cancer incidence and mortality rates have declined since 1988 in the Greater Bay Area, in large part due to reduced tobacco-related cancers in males and increased use of cancer screening tests in females.<sup>3</sup> However, cancer remains a big problem – based on current rates, more than two out of five Californians will be diagnosed with cancer during their lifetime<sup>4</sup> and one in five will die from cancer.<sup>5</sup>



Different cancers have different causes. Some causes are linked to risk factors over which we have no control over, such as age or family history of cancer. Other causes can be linked to risk factors that we can better control. Among the known risks for cancer, tobacco use stands out. Cigarette smoking is associated with more than 85% of all lung cancers and with substantial proportion of cancers of the bladder, mouth and throat, stomach, pancreas and others.<sup>4</sup> Recent studies have shown that poor diet, obesity and physical inactivity may be responsible for just as many deaths as smoking (1 in 3).<sup>5</sup>

In California, African American males have the highest overall incidence and death cancer rates. Among females, White women are the most likely to be diagnosed with cancer, but African American women are more likely to die of cancers. In general, cancer rates are about 30 percent lower among persons of Asian/Pacific Islander origin and Latinos than among Whites.<sup>1</sup> Racial and ethnic minorities tend to receive lower quality health care than Whites do. Access to good medical care is crucial to cancer survival.

For most types of cancer, abnormal cells form a lump of mass called a tumor. If cells break away and travel to other parts

of the body, they can continue to grow and damage the surrounding tissues and organs. If the spread of abnormal cells is not controlled or checked, it can result in death. However, many cancers can be cured if they are detected early through screening and prompt treatment.<sup>5</sup>

Cancer is a chronic disease that is heavily influenced by age. This means that people become much more likely to develop cancer and die from it as they get older. The formation of cancers is a multi-step process that may occur over the course of 20 years on average, although it may be shorter or longer for certain cancers. In California, nearly 60% of cancers diagnosed are among people 65 years and older, a group who make up only 10% of the total population.<sup>4</sup>

For every person diagnosed with cancer, five more are living with a history of the disease.<sup>5</sup>



## Data Sources: Cancers – All Types

### Text

1. Kwong S.L., Allen M., Wright W.E. (2005). *Cancer in California, 2005, 1988-2004*. Sacramento, CA: California Department of Health Services, Cancer Surveillance Section. Retrieved November 8, 2006 from the California Cancer Registry at <http://www.ccrca.org/PDF/Min2005.pdf>

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3. Le G.M., Gomez S.L., Clarke C.A., Chang E.T., Keegan T.M., O'Malley C.D., Glaser S.L., and West D.W. (2007). *Cancer Incidence and Mortality in the Greater Bay Area, 1988-2004*. Fremont, CA: Northern California Cancer Center.

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5. American Cancer Society, California Division and Public Health Institute, California Cancer Registry (2006). *California Cancer Facts and Figures 2007*. Oakland, CA: American Cancer Society, California Division.

### Tables

Tables 1-4: Mortality data from the California Department of Health Services (CDHS), <http://www.dhs.ca.gov/>, Center for Health Statistics' Death Statistical Master File, 2002-2004. Any analyses, interpretations or conclusions of the data have been reached by CHAPE and are not from the CDHS. Data for the following race/ethnicity groups was excluded from Table 1: Race/Ethnicity due to small numbers: American Indian/Alaska Native, Native Hawaiian/Pacific Islanders, Two or More Races, and Other. Due to unstable estimates, death rates could not be calculated for these groups. These groups were included in Table 2: Selected Cities. These tables include total deaths and age-adjusted average annual death rates for 2002 through 2004. Data was not available for all communities.

ICD10 coding for malignant neoplasms (ICD C00-C97) from the Centers for Disease Control and Prevention National Center for Health Statistics, available online at: [http://www.cdc.gov/nchs/data/nvsr/nvsr50/nvsr50\\_16.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr50/nvsr50_16.pdf)

### Population data from:

California Department of Finance (April 2006). Estimated Race/Ethnic Population with Age and Sex Detail 2000-2004. Sacramento, CA.

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Note: City level denominators were extrapolated from the E-4 file to approximate the mid-year city-level population estimates that are needed to calculate city-level rates. For more information, see our section on statistical methods.

Tables 5-6: Incidence data from Le GM, Gomez SL, Clarke CA, Chang ET, Keegan THM, O'Malley CD, Glaser SL, and West DW. *Cancer Incidence and Mortality in the Greater Bay Area, 1988-2004*. Fremont, CA: Northern California Cancer Center, 2007. Incidence data by race/ethnicity was only available for African Americans, Whites, Asian/Pacific Islanders, and Latinos. However, overall Contra Costa case counts and incidence rates include data for all race/ethnicity groups. This table includes 5-year case counts and age-adjusted average annual incidence rates for 2000 through 2004.

Incidence data for this section includes in situ and invasive bladder cancer and invasive cancers for all of the following sites: oral cavity and pharynx, digestive system, respiratory system, bones and joints, soft tissue including heart, skin excluding basal and squamous, breast, female and male genital systems, urinary system, eye and orbit, brain and other nervous system, endocrine system, lymphoma, myeloma, leukemia, mesothelioma, kaposi sarcoma, and other miscellaneous sites. For more information about the specific ICD-O-3 codes related to these cancer sites, see the National Cancer Institute's website at [http://seer.cancer.gov/siterecode/icdo3\\_d01272003/](http://seer.cancer.gov/siterecode/icdo3_d01272003/)

Healthy People 2010 objectives from the US Department of Health and Human Services' Office of Disease Prevention and Health Promotion, available online at <http://www.healthypeople.gov/>



# Lung Cancer

Lung cancer is the leading cause of cancer deaths.

## Deaths

Lung cancer is the most common cause of cancer death in Contra Costa, accounting for 26% of all cancer deaths and 6.3% of all deaths in the county.

Between 2002-2004, 1,319 Contra Costa residents died of lung cancer. This means that approximately 440 Contra Costa residents die from lung cancer each year. The age-adjusted death rate from lung cancer is higher in Contra Costa (44.6 per 100,000) than in California (41.7 per 100,000).

Contra Costa's lung cancer death rate (44.6 per 100,000) meets the Healthy People 2010 objective (44.9 per

- African American men are most likely to die from lung cancer.
- Men are most likely to die from lung cancer.
- Most new lung cancer cases and deaths are among Whites.
- On average, 440 residents die from lung cancer each year.
- Contra Costa's lung cancer death rate (44.6 per 100,000) meets the Healthy People 2010 objective.

Local Findings

## Lung Cancer Deaths by Race/Ethnicity

Table 1. Contra Costa County 2002-2004

	Deaths	Percent	Rate
White	1,039	78.8%	47.8
African American	127	9.6%	*62.0
Asian	78	5.9%	**25.7
Latino	60	4.5%	**24.6
Contra Costa	1,319	100.0%	44.6

These are age-adjusted rates per 100,000 people.

\* Significantly higher rate compared to the county overall

\*\* Significantly lower rate

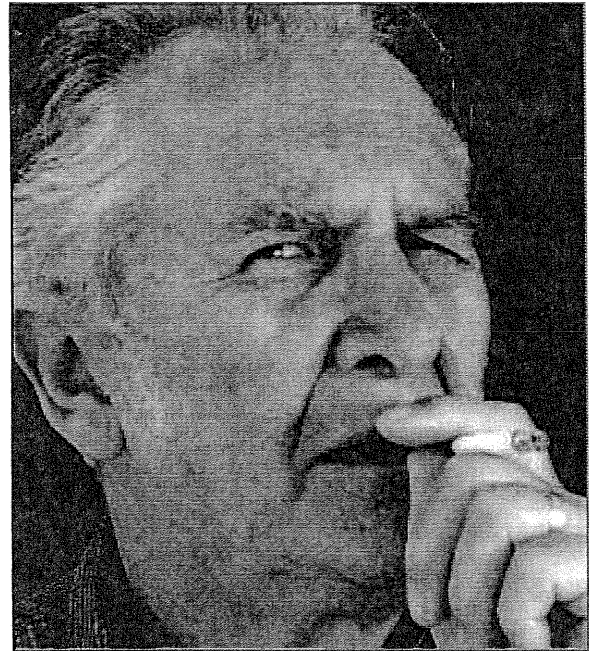






The majority of deaths from lung cancer in the county occur among Whites (1,039), followed by African Americans (127), Asians (78) and Latinos (60).

Although African Americans die in far fewer numbers than Whites, African Americans are most likely to die from lung cancer. African Americans have the highest lung cancer death rate (62.0 per 100,000) in the county – higher than the county overall (44.6 per 100,000) and Whites (47.8 per 100,000), and twice as high as Asians (25.7 per 100,000) and Latinos (24.6 per 100,000). This difference is not due to the age of the population but may be due to physical or social environmental risks, inadequate cancer screening and treatment, or unhealthy behaviors.



In this report, a lung cancer case is defined as a primary malignant tumor, that is, one originating in the lung rather than having spread to the lung from another location.

## Lung Cancer Deaths for Men

Table 2. Contra Costa County 2002–2004

	Deaths	Percent	Rate
White	484	76.8%	51.7
African American	64	10.2%	*79.1
Asian	49	7.8%	37.0
Latino	29	4.6%	**32.6
Contra Costa Men	630	100.0%	50.3

These are age-adjusted rates per 100,000 men.

\* Significantly higher rate compared to men in the county overall.

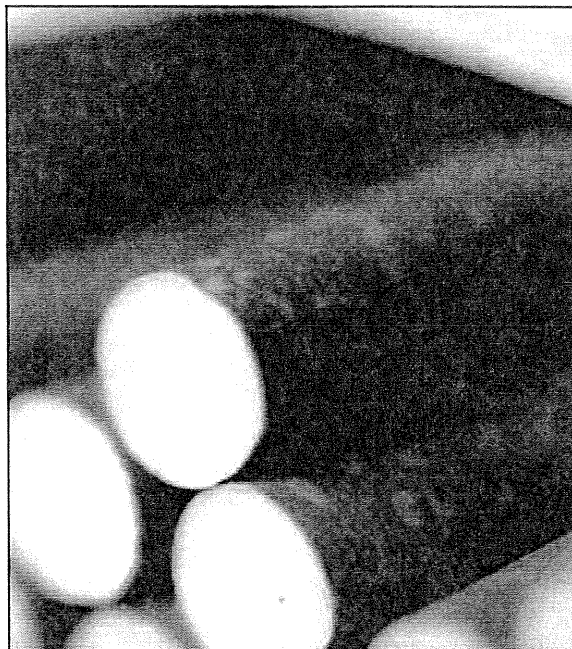
\*\* Significantly lower rate.







In Contra Costa, men have a higher rate of death from lung cancer (50.3 per 100,000) than women (41.2 per 100,000). Although men overall are more likely to die from lung cancer, over half of the deaths from lung cancer (689, 52.2%) occur among women. African American men have a higher rate of lung cancer death than the county overall and all other race groups except African American women. Despite the apparent difference in rates, there is no significant difference in the lung cancer death rate between African American men and African American women.



In other health reports, cancer is sometimes called "malignant neoplasms".

## Lung Cancer Deaths for Women

Table 3. Contra Costa County 2002-2004

	Deaths	Percent	Rate
White	555	80.6%	41.7
African American	63	9.1%	51.4
Asian	35	5.1%	**17.6
Latina	31	4.5%	**20.5
Contra Costa Women	689	100.0%	41.2

These are age-adjusted rates per 100,000 women.

\*\*Significantly lower rate compared to women in the county overall.







## Lung Cancer Deaths by Selected Communities

Table 4. Contra Costa County 2002–2004

	Deaths	Percent	Rate
Concord	203	15.4%	*60.4
Walnut Creek	181	13.7%	45.8
Richmond	143	10.8%	56.0
Antioch	111	8.4%	57.3
Martinez	76	5.8%	*75.2
Pittsburg	65	4.9%	49.6
San Pablo	55	4.2%	*82.9
Brentwood	33	2.5%	41.1
Pinole	30	2.3%	46.9
Oakley	28	2.1%	64.0
Contra Costa	1,319	100.0%	44.6

These are age-adjusted rates per 100,000 people.

\* Significantly higher rate compared to the county overall.

People living in San Pablo, Martinez and Concord are more likely to die from lung cancer compared to the county overall. Residents of San Pablo have the highest lung cancer death rate (82.9 per 100,000), followed by Martinez (75.2 per 100,000) and Concord (60.4 per 100,000). The County rate is 44.6 per 100,000. The highest numbers of deaths from lung cancer occur among people

living in Concord (203), Walnut Creek (181), Richmond (143), Antioch (111), and Martinez (76).







## New Cases

New lung cancer cases provide a sense of how much, and among whom, the disease is surfacing in the community. This information can inform prevention, screening and treatment programs by highlighting who is most at risk for being diagnosed with lung cancer and tailoring programs appropriately.

Between 2000-2004, 2,713 new cases of lung cancer were diagnosed in Contra Costa. This means that on average, there are 543 new cases of lung cancer diagnosed in the county each year.

Most new cases of lung cancer in the county (76.6%) are among Whites: women (1,113 cases) and men (964 cases).

## New Cases of Lung Cancer in Men

Table 5. Contra Costa County 2000-2004

	Cases	Percent	Rate
White	964	75.0%	65.2
African American	134	10.4%	*89.8
Asian/Pacific Islander	111	8.6%	53.9
Latino	61	4.7%	**38.6
Contra Costa Men	1,285	100.0%	64.0

These are age-adjusted rates per 100,000 men.

\* Significantly higher rate compared to men in the county overall. \*\* Significantly lower rate.

Although more cases are diagnosed among Whites, African American men in Contra Costa have the highest rate of new lung cancer cases (89.8 per 100,000) – higher than men in the county overall (64.0 per 100,000), White men (65.2 per 100,000), Asian/Pacific Islander men (53.9 per 100,000) and Latino men (38.6 per 100,000). Among women, Latinas and Asian/Pacific Islanders are less likely to be diagnosed with lung cancer than women in the county overall, White and African American women.

In Contra Costa, men are more likely to be diagnosed with lung cancer than women. The county's lung cancer incidence rate is 18% higher for males than females (64.0 vs. 54.1 per 100,000, respectively). Although men overall are more likely to be diagnosed with lung cancer, over half of new lung cancer cases (689, 52.2%) occur among women.







## New Cases of Lung Cancer in Women

Table 6. Contra Costa County 2000–2004

	Cases	Percent	Rate
White	1,113	77.9%	58.4
African American	130	9.1%	63.0
Latina	93	6.5%	**39.6
Asian/Pacific Islander	82	5.7%	**27.4
Contra Costa Women	1,428	100.0%	54.1

These are age-adjusted rates per 100,000 women.

\*\* Significantly lower rate compared to women in the county overall.

Between 2000-2004, Contra Costa's incidence rate for lung cancer (57.7 per 100,000) was similar to California's rate (56.8 per 100,000).<sup>1</sup>

### **Tobacco exposure is responsible for most lung cancer.**

Lung cancer incidence has decreased in California by more than 20% since the late 1980s, due in large part to the success of California tobacco control initiatives. However, even today, more than 8 out of 10 lung cancer cases are caused by smoking cigarettes.<sup>2</sup>

Quitting smoking can reduce a person's risk of lung cancer.<sup>2</sup> Even those who smoke more than a pack a day can reduce their risk of lung cancer by quitting smoking. Quitting smoking reduces the risk of

lung cancer for other residents too by decreasing secondhand smoke. Every year in the U.S., 3,400 non-smoking adults die of lung cancer as a result of breathing smoke from other people's cigarettes.

Lung cancer is a chronic disease that is heavily influenced by age. This means that people become much more likely to develop and die from lung cancer as they get older.

Lung cancer is difficult to detect early and treat because symptoms often do not appear until the disease has progressed. Unfortunately, most people who get lung cancer die from lung cancer. Although lung cancer survival rates have improved over the last 40 years, only 15% of people who are diagnosed with







lung cancer, all stages combined, live five years after being diagnosed. Prevention of lung cancer through smoking cessation, avoiding secondhand smoke, eating a healthy balanced diet, and being aware of environmental risks is the best way to avoid this disease.<sup>3</sup>

#### Data sources: Lung Cancer

##### Text

Lung cancer data for new cases and deaths is presented for invasive cancer only. Invasive cancer is cancer that has spread beyond the tissue where it developed to surrounding healthy tissues.

1. California Cancer Registry (CCR), Cancer Surveillance Section, California Department of Health Services (2006). Retrieved May 2, 2007 from the CCR's *California Cancer Incidence and Mortality Rates Plus Interactive Maps* public use data set at <http://www.ccrca.org/dataquery.html>

2. American Cancer Society, California Division and Public Health Institute, California Cancer Registry (2006). *California Cancer Facts and Figures 2007*. Oakland, CA: American Cancer Society, California Division.

3. American Cancer Society (n.d.) *Lung Cancer*. Retrieved March 28, 2007 from the American Cancer Society website: <http://www.cancer.org/downloads/PRO/LungCancer.pdf>

##### Tables

Tables 1-4: Mortality data from the California Department of Health Services (CDHS), <http://www.dhs.ca.gov/>, Center for Health Statistics' Death Statistical Master File, 2002-2004. Any analyses, interpretations or conclusions of the data have been reached by authors of this report and are not from the CDHS. Data for the following race/ethnicity groups was excluded from Table 1: Race/Ethnicity due to small numbers: American Indian/Alaska Native, Native Hawaiian/Pacific Islanders, Two or More Races, and Other. Due to unstable estimates, death rates could not be calculated for these groups. These groups were included in Table 2: Selected Cities.

These tables include total deaths and age-adjusted average annual death rates for 2002 through 2004. Data was not available for all communities.

ICD10 coding for malignant neoplasm of trachea, bronchus, and lung (ICD C33-C34) from the Centers for Disease Control and Prevention National Center for Health Statistics, available online at: [http://www.cdc.gov/nchs/data/nvsr/nvsr50/nvsr50\\_16.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr50/nvsr50_16.pdf)

Population data from:

California Department of Finance (April 2006). *Estimated Race/Ethnic Population with Age and Sex Detail 2000-2004*. Sacramento, CA.

California Department of Finance (May 2006). E-4 Population Estimates for Cities, Counties and the State 2001-2006, with DRU Benchmark. Sacramento, CA. Available online at: <http://www.dof.ca.gov/HTML/DEMOGRAP/Druhpar.htm>

Note: City level denominators were extrapolated from the E-4 file to approximate the mid-year city-level population estimates that are needed to calculate city-level rates. For more information, see our section on statistical methods.

Tables 5 and 6: Incidence data from Le GM, Gomez SL, Clarke CA, Chang ET, Keegan THM, O'Malley CD, Glaser SL, and West DW. (2007). *Cancer Incidence and Mortality in the Greater Bay Area, 1988-2004*. Fremont, CA: Northern California Cancer Center. Incidence data by race/ethnicity was only available for African Americans, Whites, Asian/Pacific Islanders, and Latinos. However overall Contra Costa case counts and incidence rates include data for all race/ethnicity groups. This table includes 5-year case counts and age-adjusted average annual incidence rates for 2000 through 2004.

International Classification of Diseases for Oncology, Third Edition (ICD-O-3) coding of lung cancer incidence data included C340-C349 (primary site), excluding histology types 9590-9989 came from Le GM et al. (2007). See above.

Healthy People 2010 objectives from the US Department of Health and Human Services' Office of Disease Prevention and Health Promotion, available online at <http://www.healthypeople.gov/>







# Heart Disease

Heart disease kills more residents than cancer or injury.

In Contra Costa, heart disease accounts for 25.5% of all deaths, making it the number one cause of death in our county. From 2002-2004, there were 5,280 Contra Costa residents who died of heart disease. This means that, on average, 1,760 residents of Contra Costa die from heart disease each year.

The age-adjusted death rate from heart disease is lower in Contra Costa (179.9 per 100,000) than California (202.7 per 100,000).

Contra Costa's death rate from heart disease (179.9 per 100,000) does not meet the Healthy People 2010 objective (166.0 per 100,000).

The majority of deaths from heart disease occur among Whites (4,056), followed by African Americans (581), Asians (318) and Latinos (290).

Even though African Americans die in far fewer numbers than Whites, African Americans are more likely to die from heart disease. African Americans have the highest rate of death due to heart disease (305.5 per 100,000) – almost twice the rate of the county overall (179.09 per 100,000) and Whites (182.3 per 100,000), and over twice the rate of

- African Americans are more likely to die of heart disease.
- Residents of San Pablo, Oakley, Richmond, Martinez, Antioch and Pittsburg have higher death rates from heart disease.
- On average, 1,760 residents die from heart disease each year.
- Contra Costa's death rate from heart disease (179.9 per 100,000) does not meet the Healthy People 2010 objective.

Local Findings



## Heart Disease Deaths by Race/Ethnicity

Table 1. Contra Costa County 2002–2004

	Deaths	Percent	Rate
White	4,056	76.8%	182.3
African American	581	11.0%	*305.5
Asian	318	6.0%	**116.8
Latino	290	5.5%	**131.7
Contra Costa	5,280	100.0%	179.9

These are age-adjusted rates per 100,000 residents.

\* Significantly higher rate compared to the county.

\*\* Significantly lower rate.

Asians (116.8 per 100,000) and Latinos (131.7 per 100,000). This difference may be linked to the high prevalence of risk factors for heart disease such as high blood pressure, cholesterol, diabetes, smoking, and obesity in the African American community.

Whites are equally likely to die from heart disease and Latinos and Asians are less likely to die from heart disease compared to the county overall.

In Contra Costa, men are more likely to die from heart disease (219.0 per 100,000) than the county overall (179.9 per 100,000) and women (149.7 per 100,000). Women are less likely to die from heart disease than the county overall. Although men are more likely to die from heart disease, slightly more than half of the deaths from heart disease occur among women (2,675, 50.7%).



## Heart disease Deaths by Gender

Table 2. Contra Costa County 2002-2004

	Deaths	Percent	Rate
Women	2,675	50.7%	**149.7
Men	2,605	49.3%	*219.0
Contra Costa	5,280	100.0%	179.9

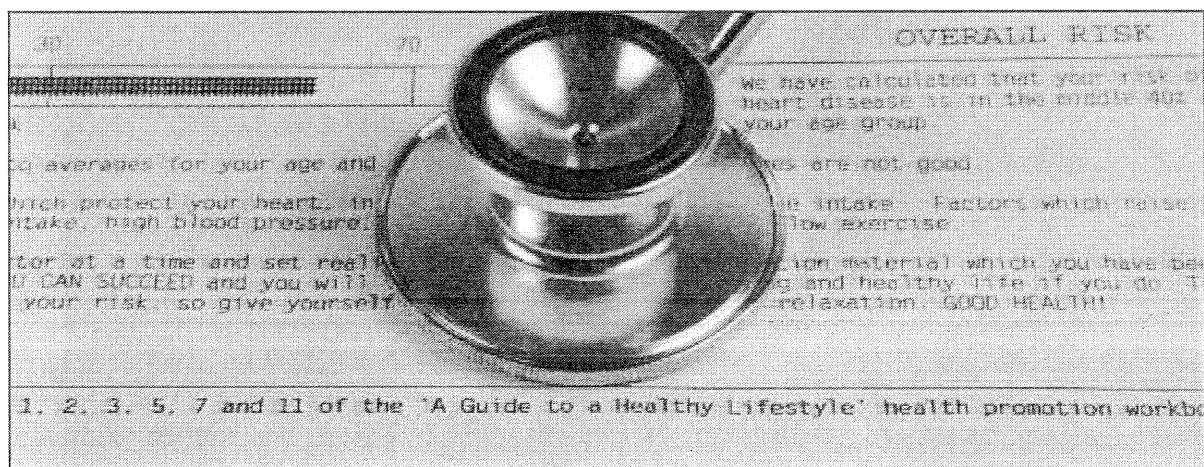
These are age-adjusted rates per 100,000 residents.

\* Significantly higher rate compared to the county.

\*\* Significantly lower rate.

Heart disease death rates are higher in some communities. People living in San Pablo, Oakley, Richmond, Martinez, and Antioch are more likely to die from heart disease compared to the county overall. Residents of Walnut Creek are less likely to die of heart disease than the county

overall. However, a large number of deaths from heart disease occur among people living in Walnut Creek (779), followed by Richmond (659), Concord (644), Antioch (411) and Pittsburg (279).





## Heart Disease Deaths by Place

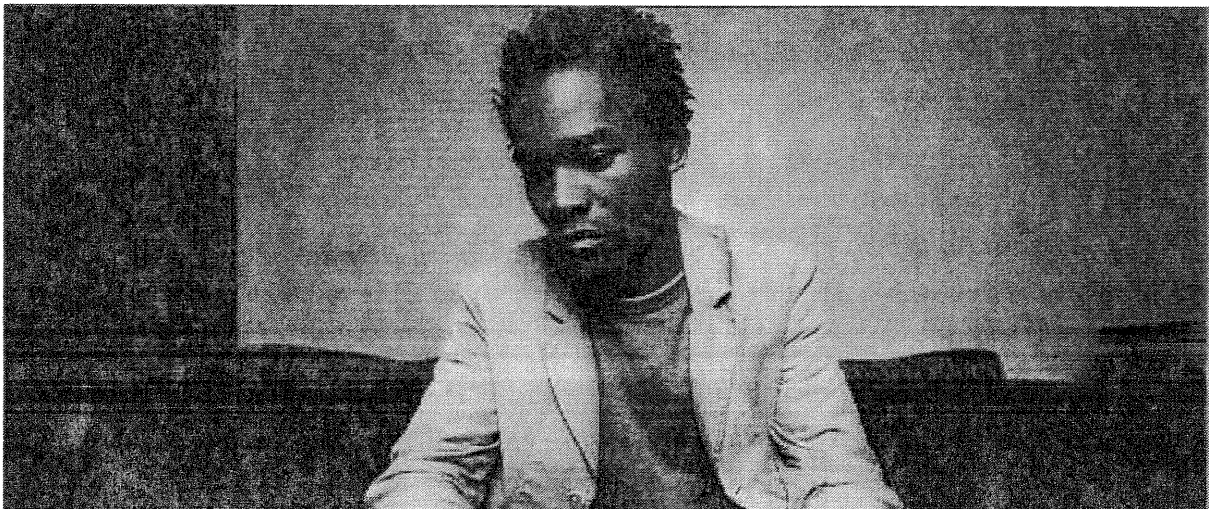
Table 3. Contra Costa County 2002-2004

	Deaths	Percent	Rate
Walnut Creek	779	14.8%	**156.1
Richmond	659	12.5%	*265.2
Concord	644	12.2%	199.7
Antioch	411	7.8%	*222.7
Pittsburg	279	5.3%	*219.9
San Pablo	250	4.7%	*353.0
Oakley	106	2.0%	*310.0
Martinez	217	4.1%	*235.6
Brentwood	141	2.7%	202.7
Pinole	124	2.4%	200.3
Bay Point	75	4.4%	229.9
Contra Costa	5,280	100.0%	179.9

These are age-adjusted rates per 100,000 residents.

\* Significantly higher rate compared to the county.

\*\* Significantly lower rate.





### More improvement is still needed.<sup>1</sup>

Despite declines in recent years, heart disease remains the leading cause of death and of premature and permanent disability in the United States for men, women and for nearly every racial and ethnic group. On average, one death from heart disease occurs every 35 seconds. Although heart disease is more common among adults age 65 and older, the number of sudden deaths from heart disease among people age 15-34 years has increased.

**Heart Disease can be prevented.** Heart disease can and does occur at any age. With timely treatment and management of risk factors, the risk of death and disability can be lowered. National guidelines suggest that blood pressure be checked regularly and blood cholesterol level be checked every five years.<sup>2</sup> Studies suggest that a 10% decrease in total cholesterol levels may reduce the development of coronary heart disease by almost 30%.<sup>2</sup>

People can reduce their risk for heart disease by not smoking, adopting a healthy diet, becoming physically active, controlling their weight, reducing stress, and avoiding other chronic conditions such as diabetes.<sup>3</sup>

#### Data Sources: Heart Disease

##### Text

1. National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention (n.d.). *Women and Heart Disease Fact Sheet*. Retrieved February 21, 2007 from the CDC website: [www.cdc.gov/dhdsplibrary/fs\\_men\\_heart.htm](http://www.cdc.gov/dhdsplibrary/fs_men_heart.htm).

2. National Center for Chronic Disease Prevention and Health Promotion, CDC(n.d.). *At a Glance: Addressing the Nation's Leading Killers 2006*. Retrieved February 21, 2007 from the CDC website: [www.cdc.gov/nccdphp/publications/aag/pdf/aag\\_cvh2006.pdf](http://www.cdc.gov/nccdphp/publications/aag/pdf/aag_cvh2006.pdf).

3. National Center for Chronic Disease Prevention and Health Promotion, CDC (n.d.). *Men and Heart Disease Fact Sheet*. Retrieved February 21, 2007 from the CDC website: [www.cdc.gov/dhdsplibrary/fs\\_men\\_heart.htm](http://www.cdc.gov/dhdsplibrary/fs_men_heart.htm).

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ICD10 coding for diseases of the heart (ICD 100-109, I11, I13, I20-I51) from the Centers for Disease Control and Prevention National Center for Health Statistics, available online at: [http://www.cdc.gov/nchs/data/nvsr/nvsr50/nvsr50\\_16.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr50/nvsr50_16.pdf)

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*Healthy People 2010* objectives from the U.S. Department of Health and Human Services' Office of Disease Prevention and Health Promotion, available online at: <http://www.healthypeople.gov/>



# Stroke

Stroke is the third leading cause of death.

In Contra Costa, strokes account for 8.1% of all deaths. From 2002-2004, there were 1,683 Contra Costa residents who died of stroke. This means that on average, 561 residents of Contra Costa die from stroke each year.

The age-adjusted death rate from stroke is higher in Contra Costa (57.8 per 100,000) than California (52.3 per 100,000).

Contra Costa's stroke death rate (57.8 per 100,000) does not meet the national Healthy People 2010 objective (50.0 per 100,000).

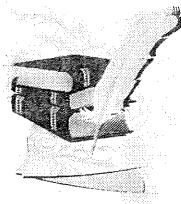
In Contra Costa, the majority of deaths from stroke occur among Whites (1,269), followed by African Americans (155), Asians (138) and Latinos (105).

Although African Americans die in far fewer numbers than Whites, African Americans are more likely to die from stroke. African Americans have the highest death rate from stroke (85.0 per 100,000) – higher than rates for the county overall (57.8 per 100,000), Whites (56.6 per 100,000), Asians (51.8 per 100,000) and Latinos (48.5 per 100,000). Demographics indicate that this difference is not due to the age of the population and may

- African Americans are most likely to die of stroke.
- Residents of Oakley, San Pablo, Pittsburg and Antioch are more likely to die from stroke.
- On average, 561 residents die from stroke each year.
- Contra Costa's stroke death rate (57.8 per 100,000) does not meet the Healthy People 2010 objective.

Local Findings

be linked to the high prevalence of risk factors for stroke such as high blood pressure, diabetes, smoking, and obesity in the African American community.



#### Editor's note:

In this report, we discuss stroke and heart disease as separate topics. Some health reports group stroke and heart disease together under the heading "cardiovascular disease".



## Stroke Deaths by Race/Ethnicity

Table 1. Contra Costa County 2002–2004

	Deaths	Percent	Rate
White	1,269	75.4%	56.6
African American	155	9.2%	*85.0
Asian	138	8.2%	51.8
Latino	105	6.2%	48.5
Contra Costa	1,683	100.0%	57.8

These are age-adjusted rates per 100,000 people.  
Significantly higher rate compared to the county.

The death rate from stroke is similar among men and women (58.6 vs. 56.5 per 100,000) and Contra Costa overall (57.8 per 100,000). Over half of the deaths from stroke occur among women (1,014, 60.2%).

## Stroke Deaths by Gender

Table 2. Contra Costa County 2002–2004

	Deaths	Percent	Rate
Women	1,014	60.2%	56.5
Men	669	39.8%	58.6
Contra Costa	1,683	100.0%	57.8

These are age-adjusted rates per 100,000 people.



## Stroke Deaths by Place

Table 3. Contra Costa County 2002-2004

	Deaths	Percent	Rate
Walnut Creek	318	18.9%	57.8
Concord	208	12.4%	64.8
Richmond	169	10.0%	69.4
Antioch	134	8.0%	*73.7
Pittsburg	99	5.9%	*78.7
San Pablo	69	4.1%	*97.9
Martinez	59	3.5%	66.1
Brentwood	53	3.1%	80.3
Oakley	36	2.1%	*111.4
Pinole	36	2.1%	58
Bay Point	24	1.4%	76.4
Contra Costa	1,683	100.0%	57.8

These are age-adjusted rates per 100,000 people.

\* Significantly higher rate compared to the county.

Stroke death rates are higher in some communities. Residents of Oakley, San Pablo, Pittsburg and Antioch are more likely to die from stroke compared to Contra Costa overall. A large number of deaths from stroke in Contra Costa occur among people living in Walnut Creek (318), Concord (208), Richmond (169), Antioch (134) and Pittsburg (99).



Stroke death rates are improving but still taking a toll. Despite declines in recent years, stroke remains the third leading cause of death in the United States and a leading cause of serious, long-term disability.<sup>1</sup> On average, every 3 to 4 minutes someone in the U.S. dies of a stroke.<sup>2</sup>

### **What is a stroke?<sup>3</sup>**

A stroke occurs when the blood supply to the brain is cut off (ischemic stroke) or when a blood vessel bursts (a hemorrhagic stroke). Most strokes are of the ischemic type, which are caused mainly by blood clots and atherosclerosis. Without oxygen, brain cells begin to die resulting in possible death or permanent disability.

It is very important to recognize the symptoms of a stroke and respond quickly with medical attention. Symptoms for stroke include sudden numbness in the face and extremities, trouble seeing, speaking and/or walking, severe headache with no known cause, loss of balance and general confusion.

### **Who is at risk?<sup>3</sup>**

Strokes can and do happen at any age, however nearly three quarters of strokes occur in people over the age of 65 years. The risk of having a stroke more than

doubles with each decade after the age of 55. High blood pressure, heart disease, diabetes, smoking and having had a previous stroke or heart attack increase a person's risk of having a stroke. With timely treatment and management of risk factors, the risk of death or disability from stroke can be lowered.



## Data Sources: Stroke

### Text

1. Paynter N., Denny C.H., Greenlund K.J., Croft J.B., Mensah G.A. (2004). Declining Prevalence of No Known Major Risk Factors for Heart Disease and Stroke Among Adults --- United States, 1991–2001. *MMWR Weekly*, 53 (01); 4-7. Retrieved February 9, 2007 from the Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention website at: <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5301a2.htm>
2. Rosamond W., Flegal K., Friday G., Furie K., Go A., Greenlund K., Haase N., Ho M., et al. (2007). Heart Disease and Stroke Statistics –2007 Update: A Report from the American Heart Association Statistics Committee and Stroke Statistics Subcommittee. *Circulation* (115) 69-171. Retrieved December 28, 2006 from the American Heart Association website at: <http://circ.ahajournals.org/cgi/content/full/115/5/e69>
3. American Stroke Association, Division of American Heart Association (n.d.). Signs and Symptoms of a Stroke. Retrieved on February 8, 2007 from the American Stroke Association website: <http://www.strokeassociation.org/presenter/jhtml?identifier=1033>.

### Tables

Tables 1-3: Mortality data from the California Department of Health Services (CDHS) website, <http://www.dhs.ca.gov/>, Center for Health Statistics' Death Statistical Master File, 2002-2004. Any analyses, interpretations or conclusions of the data have been reached by CHAPE and are not from the CDHS. In Table 1, data for the following race/ethnicity groups was excluded due to small numbers: American Indian/Alaska Native, Native Hawaiian/Pacific Islanders, Two or More Races, and Other. Due to unstable estimates, rates could not be calculated for these groups. Tables 2 and 3 include all race/ethnic groups including those mentioned above. These tables include total deaths and age-adjusted average annual death rates for 2002 through 2004. Data was not available for all communities.

ICD10 coding for cerebrovascular disease (ICD I60-I69) from the Centers for Disease Control and Prevention National Center for Health Statistics, available online at: [http://www.cdc.gov/nchs/data/nvsr/nvsr50/nvsr50\\_16.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr50/nvsr50_16.pdf)

### Population data from:

California Department of Finance (April 2006). *Estimated Race/Ethnic Population with Age and Sex Detail 2000-2004*. Sacramento, CA.

California Department of Finance (May 2006). *E-4 Population Estimates for Cities, Counties and the State 2001-2006, with DRU Benchmark*. Sacramento, CA. Available online at: <http://www.dof.ca.gov/HTML/DEMOGRAP/Druhpar.htm>

Note: City level denominators were extrapolated from the E-4 file to approximate the mid-year city-level population estimates that are needed to calculate city-level rates. For more information, see our section on statistical methods.

Healthy People 2010 objectives from the US Department of Health and Human Services' Office of Disease Prevention and Health Promotion, available online at: <http://www.healthypeople.gov/>



